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Frederick P. Fish 1855-1930 W.K. Richardson

> 1859-1951 March 25, 2002

> > William F. Caton, Acting Secretary Federal Communications Commission 445 Twelfth Street, S.W. Washington, D.C. 20554

> > > Re: Ex Parte Presentation in ET Docket 98-42



BOSTON

DALLAS

DELAWARE

NEW YORK

SILICON VALLEY

TWIN CITIES

75/09/2007/01/01/27/2007/07/2

WASHINGTON, DC

Dear Mr. Caton:

On Friday, March 22, 2002, Mr. Kent Kipling, of Fusion Lighting, Inc. and I met with Sam Feder, Senior Legal Advisor to Commissioner Martin. The purpose of the meeting was to discuss Fusion's position with respect to out-of-band emissions proposals by Sirius Satellite Radio and XM Radio in the above-referenced proceeding. At the meeting, Mr. Kipling distributed the attached handout describing the history of Fusion Lighting, the various out-of-band emission's proposals, tests of DARS receivers performed by Fusion, and Fusion's request for a safe harbor.

Please contact me if you have any questions.

Very truly yours,

Robert J. Umgar

Counsel to Fusion Lighting, Inc.

Enclosure RJU/tmh

cc: Carl R. Frank

Bruce D. Jacobs

# Fusion Lighting's Sulfur Lamp

- Highly efficient
- Highly acclaimed
  - 1995 R@D 100 award



- 1995 Popular Science Best of what's new
- 1998 Light Fair Innovation award
- 2001 Smithsonian Lighting exhibit
- Broadly supported
  - Private \$40M+, DOE \$6M+, NASA, EPA

March 2002

FCC Meeting

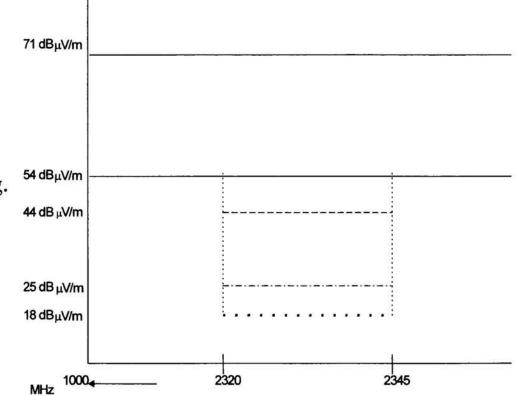
### History

- Fusion directed to the 2.45 GHz ISM band by the FCC in the 1970s
  - Basis of UV curing business
  - Basis of semiconductor equipment business
- Sulfur lamp FCC tested and approved 1996
- Initial lamp sales 1996



## Proposed out-of-band limits

- Current limit 71dBµV/M @ 3M Avg.
- FCC proposal 54dBµV/M @ 3M Avg.
  - 85% reduction from current limit
- Fusion proposal 44dBµV/M @ 3M Avg.
  - 95% reduction from current limit
  - Safe Harbor
- DARS demand 25dBµV/M @ 3M
  - 99.9% reduction from current limit
- Sirius petition 18.7dBµV/M @ 3M



March 2002

**FCC Meeting** 



#### Fusion Lighting Testing of DARS Receivers

- XM Satellite Radio
  - No interference from Fusion lamp at 3 meters
    - (Lamp emission 51 dBμV/M @3 meters)

- Sirius Satellite Radio
  - No interference from Fusion lamp at 5 meters
    - (Lamp emission 51 dBμV/M @3 meters)



#### Tentative Fusion Proposal

• In-band limits compatible with practical magnetron driven lamps

 "Safe Harbor" guarantee for out-of-band emissions

